CLAIMS:

- 1. An alarm system comprising:
 - an alarm controller,
- 5 a remote input/output device,
 - a cable extending from the alarm controller to the remote input/output device, the cable comprising two conductors providing power to the remote input/output device, and
- a signal processor at the controller monitoring and processing voltage and current fluctuations in the conductors and controlling functions of the alarm system.
- 2. The alarm system of Claim 1 further comprising a
 15 mixer at the remote input/output device operative to affect current and voltage at the two conductors.
- 3. The alarm system of Claim 1 wherein the signal processor monitors for predefined voltage and current levels at the two conductors.
 - 4. The alarm system of Claim 2 wherein the mixer applies predefined voltage and current levels at the two conductors.